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POSTMORTEM EXAMINATION
OF THE BODY OF

Brittany Stykes
Case # - 13-3401
Brown County

I. Gunshot wound of the neck:

A. Wound of entrance: left side of neck, no soot or stippling, indeterminant or distant range of fire.

B. Pathway: through the skin and soft tissue of the neck.

C. Wound of exit: posterior neck.

D. Direction: front to back, left to right, and slightly upward.

II. Gunshot wound of the chest:

A. Wound of entrance: left side of chest, no soot or stippling, indeterminant or distant range of fire.

B. Pathway: through the skin and soft tissue of the left chest, left rib 5, left lung, pericardial sac, heart, right lung, between right ribs 4 and 5, right side of chest (midaxillary line).

C. Wound of exit: right side of chest (midaxillary line).

D. Direction: left to right, front to back and slightly upward.

E. Associated injury: fracture left rib 5 and bilateral hemothoraces (approximately 1,000 mL, right and left chest).

III. Gunshot wound of the right arm:

A. Wound of entrance: medial surface of right arm, no soot or stippling, indeterminant or distant range of fire (most likely re-entry wound).

B. Pathway: through the skin and soft tissue of the right arm.

C. Exit: posterior-lateral right arm.

D. Direction: left to right.

IV. Abrasions above the right eye, chin, below left ear, right leg, and left hand.

V. Contusions of the forehead, right forearm and right thigh.

VI. Pregnant:

A. Fetus (reported clinical history of 17 week gestation).

B. No evidence of significant trauma.

C. No evidence of significant congenital abnormalities.

D. Single placenta with three-vessel umbilical cord.

OPINION

It is my opinion that the cause of death of Brittany Stykes is:
Gunshot wound of the chest.

Susan L. Allen, D.O., Forensic Pathologist
Deputy Coroner, Montgomery County, Ohio

10/22/13
Date

A postmortem examination of the body of a 22-year-old white female, identified as Brittany Stykes, is performed at the Montgomery County Coroner's Office on August 29, 2013. The examination is conducted by Susan L. Allen, D.O., and is begun at 8:49 a.m.

ATTENDANCE

In the performance of their usual and customary duties, Autopsy Assistants Denny Blevins, Donald Webb, and Photographer Kary Riley are present during the autopsy. Also present during the autopsy are Investigators from the Bureau of Criminal Investigations and Identification (Ed Hunter and Tish Schuller) and Detectives from the Brown County Sheriff's Office (Corey Gould and Rick Haney).

CLOTHING:

The body is received clad in a tee-shirt, tank top, bra, shorts, underpants, socks and shoes. The decedent's upper body garments (tee-shirt, tank top, bra) have multiple defects corresponding to the wounds described below.

PROPERTY:

Property includes two hair ties, a white metal ring with a green setting, two white metal rings with clear settings, a yellow metal ring with a clear setting, two white metal hoop earrings, bobbie pins, photo identification, miscellaneous cards and papers, and $125.61 in cash.

IDENTIFICATION TAGS:

A Montgomery County Coroner's Office morgue identification band is around the left ankle. A Brown County identification band is around the right ankle.

EXTERNAL EXAMINATION:

The body is that of a well-developed, well-nourished, adult white female; 176 pounds and 65 inches, whose appearance is appropriate for the reported age. The body is cool to touch. Rigor mortis is developed. Livor mortis is red-purple, posterior, and does not blanch with pressure.

The scalp hair is brown, 15 inches in maximum length. The irides are blue-gray. The sclerae and conjunctivae are clear. The nose and ears are not unusual. The teeth are natural, and in adequate repair. The tongue appears normal.

The neck is remarkable for a gunshot wound described below. The thorax is well developed and symmetrical with a gunshot wound described below. The abdomen is protuberant. The anus and back are unremarkable. The external genitalia are those of a normal adult female.

The upper and lower extremities are well developed and symmetrical.

IDENTIFYING MARKS:

No identifying marks or scars are readily apparent.

EVIDENCE OF MEDICAL INTERVENTION:

Evidence of medical intervention includes electrocardiogram (EKG) pads on the chest and abdomen.

EVIDENCE OF INJURY:

I. Gunshot wound of the neck:

A. Entrance: On the left side of the neck, 7 inches below the top of the head, 5 1/2 inches to the left of the anterior midline, and 1 1/2 inch from the inferior attachment of the left ear, is an entrance gunshot wound consisting of a 3/4 inch defect with marginal abrasion. Soot, unburned gunpowder particles and gunpowder stippling are not visible on the skin surrounding the wound.

B. Path: The wound path is through the skin and soft tissue of the neck.

C. Exit: On the posterior neck, 6 1/2 inches below the top of the head and in the posterior midline, is an exit gunshot wound consisting of a 1/4 inch laceration without marginal abrasion.

D. Direction: The direction of the wound is from the decedent's front to back, left to right, and slightly upward.

II. Gunshot wound of the chest:

A. Entrance: On the left side of the chest, 10 inches below the top of the left shoulder, 7 inches to the left of the anterior midline, and 46 1/2 inches above the inferior plane of the left heel, is an entrance gunshot wound consisting of a 1/2 inch defect with a marginal abrasion.

B. Path: The wound path is through the skin and soft tissue of the left chest, left rib 5, left upper lobe of the lung, pericardial sac, heart (apex, septum, right atrium), right middle lobe of the lung, between right ribs 4 and 5, right side of the chest (midaxillary line).

C. Exit: On the right side of the chest in the midaxillary line, 6 inches below the top of the right shoulder, 9 inches to the right of the anterior midline, and 50 1/2 inches above the inferior plane of the right heel, is an exit gunshot wound consisting of a 1 inch laceration with surrounding purple contusion.

D. Direction: The direction of the wound is from the decedent's left to right, front to back and slightly upward.

E. Associated injury: Fracture of the left fifth rib and bilateral hemothoraces (approximately 1000 mL, right and left chest).

III. Gunshot wound of the right arm:

A. Entrance: On the medial surface of the right arm, 6 inches below the top of the right shoulder and 8 inches above the right elbow, is an entrance gunshot wound consisting of a 1/4 inch defect with a marginal abrasion. Soot, unburned gunpowder particles and gunpowder stippling are not visible on the skin surrounding the wound (most likely a re-entry wound).

B. Path: The wound path is through the skin and soft tissue of the right arm.

C. Exit: On the posterolateral right arm, 6 inches below the top of the right shoulder and 8 inches above the elbow, is an exit gunshot wound consisting of a 1/4 inch laceration.

D. Direction: The direction of the wound is from the decedent's left to right.

Additional injury:

A 1/2 inch faint red contusion is on the right side of the forehead. A 1/2 inch yellow abrasion is above the right eye. A 1/2 inch yellow abrasion is below the left ear, 1 inch anterior to the entrance wound of the neck. Multiple yellow abrasions are on the chin, ranging in size from 1/4 – 1 1/4 inch. A 1 inch purple contusion is on the right forearm. Multiple abrasions are on the left long finger and ring fingers, 1/4 inch each. A yellow-purple contusion (1/4 inch) is on the right thigh and two yellow abrasions are on the anterior right leg, ranging in size from 1 1/4 – 1 1/2 inch each.

INTERNAL EXAMINATION:

The internal organs are of normal anatomic distribution. No adhesions are in the body cavities. Approximately 1000 mL of blood is in the right and left chest cavities.

CARDIOVASCULAR SYSTEM:

The heart is 245 grams. The pericardial sac has a gunshot wound described above. Coronary arteries arise normally, following a right-dominant pattern with no significant atherosclerotic stenoses. The chambers and valves have the usual size and position relationship. The right ventricular wall thickness is 0.3 cm; the interventricular septum thickness is 1 cm; the left ventricular wall thickness is 1 cm. The myocardium is red-brown with a gunshot wound described above. The aorta and its major branches arise normally and follow the usual course with fatty streak atherosclerosis. The vena cava and its major tributaries are thin walled and patent, in the usual distribution.

RESPIRATORY SYSTEM:

The right lung is 200 grams, the left lung is 170 grams. The tracheobronchial tree is patent and mucosal surfaces are intact. Pleural surfaces show gunshot wounds of the right middle lobe and left upper lobe, as described above. The pulmonary parenchyma is pink-tan to dark red-purple and exudes a moderate amount of blood and frothy fluid. Pulmonary arteries and veins are normally developed and patent.

DIGESTIVE/HEPATOBILIARY SYSTEM:

The esophagus is lined by intact tan-white smooth mucosa. The gastric mucosa is arranged in the usual rugal folds, and the lumen contains approximately 1 L of tan-brown fluid and food material. The small and large intestines are unremarkable. The

mesentery and omentum appear normal. The colon contains formed stool. The pancreas has the usual tan lobulated appearance.

The liver is 1340 grams and has a smooth, intact capsule covering red-brown parenchyma. The thin-walled gallbladder contains approximately 5 mL of viscid bile with no gallstones.

ENDOCRINE SYSTEM:

The pituitary, thyroid, and adrenal glands are unremarkable.

GENITOURINARY SYSTEM:

The normal-shaped kidneys together are 265 grams. The capsules are smooth, thin, semitransparent, and strip with ease from the underlying pale red-brown cortical surfaces. The cortices are sharply delineated from the medullary pyramids. The calyces, pelves, and ureters are unremarkable. The urinary bladder is empty; the mucosa is gray-tan and intact.

The vagina, ovaries and fallopian tubes are unremarkable. The uterus contains a fetus, described below.

HEMATOPOIETIC SYSTEM:

The thymus is appropriate in size and configuration for the age of the decedent. The spleen is 175 grams and has a smooth intact capsule covering red-purple parenchyma. The regional lymph nodes have the usual distribution and appearance. The bone marrow (rib ends) is red-brown and homogeneous, without focal abnormality.

MUSCULOSKELETAL SYSTEM:

Aside from previously-described injuries, the bony framework, supporting musculature, and soft tissues are not unusual.

NECK:

Aside from previously-described injuries, the soft tissues of the neck, including strap muscles and large vessels, reveals no abnormalities. The hyoid bone and larynx are intact. The tongue is normal.

NERVOUS SYSTEM:

The brain is 1280 grams. The dura mater and falx cerebri are intact, and the leptomeninges are thin and delicate. The cerebral hemispheres are symmetrical, with a normal pattern and distribution of sulci and gyri. The structures at the base of the brain, including cranial nerves and blood vessels, are intact and free of abnormality. Sections of the cerebral hemispheres reveal no lesions within the cortex, subcortical white matter, or deep parenchyma of either hemisphere. The cerebral ventricles are of normal caliber, containing clear cerebrospinal fluid. Sections through the brainstem and cerebellum are unremarkable.

SPECIAL STUDIES:

Postmortem radiographs reveal no retained projectiles.

FETUS:

The uterus contains a 128 gram fetus with a head circumference of 13 cm, a chest circumference of 11.5 cm, an abdominal circumference of 10.5 cm, a foot length of 2 cm, crown-rump length of 11.5 cm, and crown-foot length of 17.5 cm.

The fetus is connected to the placenta by a 13 inch three-vessel umbilical cord. The umbilical cord has a centrally-located insertion in the placenta. The fetal surfaces of the placenta are smooth and glistening. The maternal surfaces of the placenta are intact. The placenta is 10 x 10 x 0.5 cm and weighs 72 grams.

EXTERNAL FETAL EXAMINATION:

Facial features are normally formed. The chest has a normal anterior-posterior diameter. Extremities are equal and symmetrical. The back, buttocks and anus are unremarkable.

INTERNAL FETAL EXAMINATION:

The internal organs are of a normal anatomic distribution. No adhesions or abnormal fluid collections are in the body cavities.

CARDIOVASCULAR SYSTEM:

The heart is less than 1 gram. The pericardial surfaces are smooth, glistening and unremarkable. The pericardial sac is free of significant fluid or adhesions. Coronary arteries arise normally. The chambers and valves have the usual size and position relationship. The myocardium is uniform red-brown and free of abnormal markings.

The aorta and its major branches arise normally and follow the usual course. The vena cava and its major tributaries are thin-walled and patent and in the usual distribution.

RESPIRATORY SYSTEM:

The right lung is 4 grams, the left lung 2 grams. The tracheobronchial tree is patent and mucosal surfaces are intact. Pleural surfaces are translucent, smooth and glistening. The pulmonary parenchyma is pink-tan to dark red-purple and exudes a slight amount of blood and frothy fluid.

DIGESTIVE/HEPATOBILIARY SYSTEM:

The esophagus is lined by intact tan-white smooth mucosa. The gastric mucosa is arranged in the usual rugal folds. The small and large intestines appear normal. The mesentery and omentum appear normal. The pancreas has the usual tan lobulated appearance.

The liver is 6 grams and has a smooth intact capsule covering red-brown parenchyma.

ENDOCRINE SYSTEM:

The pituitary, thyroid and adrenal glands are unremarkable.

GENITOURINARY SYSTEM:

The normal-shaped kidneys together weigh less than 1 gram. The capsules are smooth, thin, semitransparent and strip with ease from the red-brown cortical surfaces. The cortices are sharply delineated from the medullary pyramids.

HEMATOPOIETIC SYSTEM:

The spleen weighs less than 1 gram and has a smooth intact capsule covering red-purple parenchyma.

MUSCULOSKELETAL SYSTEM:

The bony framework, supporting musculature, and soft tissues are not unusual.

NERVOUS SYSTEM:

The brain is 18 grams. The dura mater and falx cerebri are intact and leptomeninges are thin and delicate. The cerebral hemispheres are symmetrical with softening. Sections of the cerebral hemispheres reveal no obvious lesions within the cortex, subcortical white matter, or deep parenchyma of either hemisphere.

MICROSCOPIC EXAMINATION

HEART: Focal extravascular blood.

LUNGS: Congestion.

UTERUS: Decidual tissue.

PLACENTA: Consistent with second trimester placenta.

UMBILICAL CORD: Three-vessel umbilical cord with no evidence of inflammatory cells.

FETAL MEMBRANES: No evidence of inflammatory cells.

FETAL TISSUE (Liver, Kidney, Heart, Lung): No significant histopathologic abnormality in sections examined.

LIVER, PANCREAS, KIDNEY, SPLEEN, BRAIN, ADRENAL GLAND, THYROID GLAND, AND PITUITARY GLAND: No diagnostic histopathologic abnormalities are noted in sections of these organs.

SLA:sm
10/11/13

Montgomery County Coroner's Office
361 West Third Street, Dayton, Ohio 45402
Kent E. Harshbarger, M.D., J.D., M.B.A., Coroner

Toxicology Laboratory Report

Decedent: Brittany Stykes W/F/22 Years
Case Number: 13-3401

Requesting Agency: Brown County Coroner

Toxicology Service Requested

A Service: Consists of screening tests for *Basic Volatiles* (ethanol, methanol, acetone, and isopropanol) and a Drug Screen by Elisa immunoassay (amphetamine class, barbiturates, benzodiazepines, carisoprodol, cocaine metabolite, marijuana metabolite and opiates). Confirmation and quantitation are performed on positive screens.

Initial Screening Tests and Results

Basic Volatiles Screen

Analyte	Specimen	Results
Basic Volatiles (Ethanol, Methanol, Isopropanol, Acetone)	Blood, Cavity	Not Detected

ELISA Immunoassay Screen

Analyte	Specimen	Results
Drugs of Abuse (Amphetamines, Barbiturates, Benzodiazepines, Carisoprodol, Cocaine, Opiates, Tetrahydrocannabinol Metabolite)	Blood, Cavity	Not Detected

This toxicology report contains the interpretations and opinions of the signatory and of the analysts based on the final results from all testing

Results reviewed by:

Laureen J. Marinetti 9-27-13

Laureen J. Marinetti, Ph.D., D-ABFT
Chief Forensic Toxicologist

Date Completed

Nationally Accredited by The American Board of Forensic Toxicology

Data current as of: 9/27/2013 at 6:04:05PM